

Sep Oct 1989

lung diseases still on the rise

But Utah bucks trend in western states

17 Sep 1989

By ROBERT BYRD
Associated Press Writer
ATLANTA (AP) — More than 71,000 Americans a year die from emphysema and bronchitis and similar chronic lung diseases — the vast majority from smoking — and the West has the highest death rate, U.S. health researchers say.
The national Centers for Disease Control reported recently that 71,099 Americans died of emphysema, bronchitis and similar chronic lung diseases in 1986, the latest year for which complete statistics are available.
CDC statisticians used information about the prevalence of smoking and the risks of smoking to project that 82 percent of the lung-disease deaths were attributable to

smoking.
The highest death rates were across the West, with the exception of Utah and Hawaii. The CDC said the highest rate was in Wyoming, with 49 such deaths per 100,000 people in 1986, significantly higher than the national average of 29.5.
Other states with the worst lung-disease death rates were Kentucky, West Virginia and Maine.
The lowest rates were in the upper Midwest, the Texas-to-Mississippi belt and the middle Northeast. And the lowest rate of all was in Hawaii, with 16.9 such deaths per 100,000.
The higher rates in the West came despite a generally higher prevalence of smokers in the East, the CDC said.

But emphysema and bronchitis, like lung cancer, can take decades to attack and kill smokers — so today's death rates could reflect smoking patterns of many years ago, or even migration by former smokers to the West, the CDC said.
"What happens (with emphysema and bronchitis) is as it is with lung cancer — it's what you did a long time ago that affects your current disease status," said Dr. Robert Hahn, a CDC specialist in lung diseases.
The CDC said the national mortality rate from lung diseases such as bronchitis and emphysema, at 29.5 per 100,000 people, is up 33 percent from 1979, when the rate was about 22 deaths per 100,000.

The rate has risen just 15 percent in males over that time but has increased 80 percent in females — reflective of a later move by women to give up smoking, Hahn said.
Although smoking by men peaked in the 1950s, smoking by women didn't peak until the mid-1960s. He said their lung disease death rates, therefore, continue to rise, reflecting their smoking habits from three decades ago.
"Women still have rapidly rising rates, and we'll probably see that for another 10 years," he said.
The lung disease death rate, nonetheless, was 1.8 times as high in men as in women in 1986. It also was 2.8 times higher for whites than for blacks, the CDC said.

Three Utahns Make Forbes 400 List

11 Oct 1989

Utah industrialist Jon M. Huntsman, who over the past two decades has built up a worldwide plastics empire based out of Salt Lake City, has been named for the first time to Forbes magazine's list of the 400 richest Americans.



Mr. Huntsman

Mr. Huntsman, chairman and chief executive of Huntsman Chemical Co., joins fellow Utahns L.S. (Sam) Skaggs and James L. Sorenson on the annual listing of the country's wealthiest individuals.

"Contrarian Jon Huntsman made most of his \$450 million fortune in half a decade buying petrochemical plants when everybody said that American industry was dying," Forbes magazine said of the Utah entrepreneur.

Although Mr. Huntsman's personal fortune resulted in his being ranked 192 on the list, he was



Mr. Sorenson



Mr. Skaggs

178th spot.
Utah, with three multimillionaires on the list, was tied with Colorado, Hawaii, Indiana and Kansas in the number of the nation's wealthiest individuals living within its borders.

Colorado residents on the Forbes list include Bob John Magness, chairman of Tele-Communications Inc., whose estimated fortune of \$645 million was derived from involvement in cable television industry. He was 116th on the Forbes list.

Charles Gates of Gates Corp., Denver, had an estimated fortune of \$500 million and Philip Ans-

10,000, an annualized rate of 8.25% with an annualized rate for the 6-month term.

MINIMUM	ANNUAL RATE	%
\$1,000	8.15%	%

which is both strong and well capitalized, and is available from a local financial institution. CD provides a high

Performance CD

of Flying

7 tons of goodies depart S.L. for Desert Shield GIs

■ 300 boxes:

Soldiers to gain books, games and letters — and some golf clubs from governor.

By Steve Fidel
Deseret News staff writer

20 Oct 89

More than seven tons of books, games and letters donated by Utahns — and golf clubs from the governor — left Salt Lake City on Friday for soldiers participating in Operation Desert Shield.

Included in the 300 boxes was a pallet of goods collected by an Orem Eagle Scout candidate that are addressed specifically for 14 Utah National Guard soldiers manning water purification equipment on the Persian Gulf in Saudi Arabia.

Nita Wright, whose husband, Mike, is one of the Utah Guard members in Saudi Arabia, was on hand to watch the boxes go from a Fred Meyer warehouse into the truck that will deliver the goods to the Army's Tracy Defense Depot in California. From there, the shipment will await transportation halfway around the world to the Saudi Arabian desert — nicknamed the "world's largest sand trap" since American soldiers began arriving there after the Aug. 2 invasion by Iraq of Kuwait.

The sand-trap nickname spurred Gov. Norm Bangerter to package several sand wedges for the shipment so the soldiers can practice their golf.

Wright said the parcels from home will be a most welcome



PHOTOGRAPHY / DON GRAYSTON

Utah Guard Major Kent Demars and Nita Wright, wife of a Guardsman in Saudi Arabia, pack supplies for soldiers.

sight, especially for soldiers like her husband who have not had any of their mail get through since they arrived in Saudi Arabia Sept. 16.

Members of the Utah water purification group in Saudi Arabia started volunteering at a mili-

tary post office several weeks ago with the hope that they would see some of their own mail arrive. Wives of several other members of the American Fork-based 120th Quartermaster Detachment said their husbands have

Please see SHIELD on B2

20 Oct 1990

Utahns called 'healthiest people in the nation'

By JoAnn Jacobsen-Wells
Deseret News medical writer

"Eat, drink and be merry, for tomorrow you may be in Utah."

And you'll be healthier if you are.

A national insurance company has declared that Utah has the healthiest population in the nation, thanks to few contagious diseases and limited smoking and alcohol consumption.

Utah's first-rate status was announced by Northwestern National Life Insurance Co., which did a comprehensive analysis of the relative health of the population in each of the 50 states.

Meanwhile, northern Utah's Salt Lake City-Ogden area has been named America's 16th Most Livable City, according to the 1989 edition of the Places Rated Almanac.

The 333 rankings in the almanac's third edition were also based on health care, plus the categories of crime, the environment, transportation, education, the arts, recreation and climate.

Two other cities in the Intermountain Re-

State rankings

Healthiest	Unhealthiest
1. Utah	50. Delaware
2. North Dakota	49. Mississippi
3. Idaho	48. Michigan
4. Minnesota	47. Nevada
5. Hawaii	46. S. Carolina
6. Vermont	45. Georgia
7. Nebraska	44. Florida
8. Colorado	43. Maryland
9. Wyoming	42. Alabama
10. Montana	41. N. Carolina

gion—Provo-Orem and Boise, Idaho,—were included in the rankings. Provo-Orem area ranked 84th; Boise, 111th.

To create the NWNL State Health Rankings, the Minneapolis-based insurer combined 16 commonly accepted health measurement criteria available from government and public health organizations. The measurements were grouped into six factors, and states were ranked accordingly.

Utah scored first in good health habits, low rate of premature death and in avoidance of disease. It ranked third in life expectancy, 10th in productivity least affected by illness and 38th in access to medical care.

Overall, Delaware was last.

"Residents of Utah live 2 1/2 years longer than citizens of Delaware," said Rick Ellis, NWNL's group sales manager for Utah. "Utah residents also have one-sixth as many contagious diseases, smoke half as many cigarettes and purchase half as much alcohol as the lowest ranked state."

State epidemiologist Craig Nichols concurred that Utah's sexually transmitted disease rates "are extremely low compared to the rest of the country and always have been."

"That's because the sexual habits of Utahns are much different. That has been shown by several studies done by the Utah Department of Health, based on our investigation of herpes, AIDS and other sexually transmitted diseases," Nichols said.

But, according to Nichols, immunization rates aren't as high as they should be. "In fact,

in some respects we have been lucky that we haven't had major outbreaks," he said.

Ellis said another drawback in Utah is that its residents have slightly lower than average access to health care because 20 percent of the population does not have health insurance.

Why the geographical differences in disease, health habits and longevity?

"You'll probably find a pretty good correlation between health and genetics, education, a clean environment and even the cultural background," said Fredric Sattler, head of NWNL's managed health care division.

"There's less of a relation between health and income. Montana, one of the top-10 healthy states, has a median income much below the national average."

States with the highest overall health standing generally are located in the upper Midwest and the Rockies. States with the lowest rankings are mainly clustered in the Southeast and along the Atlantic Seaboard.

The state rankings are contained in a 95-page report, which contains data from 1980 to 1989.

1 Nov 1989

USU devising long-lasting dairy items for astros' snacks in the Milky Way

By JoAnn Jacobsen-Wells
Deseret News science writer

LOGAN — So long, Tang. Utah State University will soon help launch the first milk into space.

USU-made non-refrigerated yogurts, custards and cheesecakes may also be moving through the galaxy if Lockheed scientists work out the kinks in a pouch that can tolerate zero gravity and heat.

At the request of NASA, a USU nutritionist is perfecting all types of aseptic, or ultra-high temperature, milk to make it suitable for a shelf-life of 90 to 180 days.

At the Center for Dairy Food Technology, Paul Savello, assistant professor of nutrition and food sciences, is working with flavored, whole, 2 percent, skim and low-lactose milks — whatever he thinks the astronauts will want.

Getting milk into space is a high priority of NASA scientists, whose goal is to make space station food "as close as possible to home cooked." They're also trying to figure out a way to carry fresh fruits and vegetables on flights and to make fresh sandwiches in space.

Although the USU proposal has been approved by NASA, the contract will be final with only congressional appropriation to the space program.

But USU isn't competing for the project.

"One of the things you have to keep in mind on a project like this is that this is not a high-volume business. NASA doesn't look for millions of patches; they only need a few."

Therefore, Savello said big commercial companies, who are running monster machines to process thousands of tons of milk an hour, can't do small individual containers.

Machine injects sterilized milk into pouches, right, for space travel. USU nutritionist Paul Savello is perfecting all types of ultra-high temperature milk.



U. honors fuels engineer for his contributions in education and industry

11-21-89

United Press International



Alex Oblad

The University of Utah Institutional Council has again honored metallurgy and fuels engineer Alex Oblad.

In addition to his title as university distinguished professor, the Institutional

Council also has named Oblad to the special rank of dean emeritus for his contributions to education, industry and research.

The university panel also cited Oblad, 80, for his "breadth of learning" as professor, administrator and philanthropist.

"Dr. Oblad is a leading figure on the transfer of the discoveries from basic research to applications in industry," the council said. "His work in the development of synthetic ammonia technology is a basis for the fertilizer industry that has helped feed hungry people throughout the world."

The Salt Lake native also was a pioneer in the studies of petroleum catalytic cracking and reforming. His research helped develop the process for producing high-octane gasoline.

The former dean of the university's College of Mines and Mineral Sciences is still an active teacher and researcher. His current research is aimed at finding efficient ways for converting tar sands, which are abundant in eastern Utah, into usable synthetic fuels and oil.

has a discernable U2 feel (maybe we're talking Celtic/Gaelic rock here?), without The Edge's hypnotic, ringing guitar. No, the rhythm section of Sharp, MacDonald and Twist is a bit more mainstream: straightforward, gritty, but nevertheless fer-vent. "Change" features a love song or three, as in the hopefully passionate "No Frontiers," the starchy "Rock" and the blues-based wail of betrayal, "Sold Me Down the River," the first single. But the most persistent theme is a lament for Wales as a land battered and further threatened by man, both physically and culturally: "Hard-land," "Where A Town Once Stood."

NIGHTS ONLY
Grab & Shrimp, Oysters - Fried Shrimp, Clams, Salmon, Halibut, Steaks & Lots More And Full Salad Bar

DANCING FRI & SAT NIGHT

Red Flame
1342 So. 5th West
292-3121

CRIMES AND MISDEMEANORS

COTTONWOOD MALL 4 278-4711 5001 SO. HIGHLAND

THE BEAR (PG) (5:30) 7:30 9:40

GROSS ANATOMY (PG13) (5:00) 7:10 9:30 STEREO

COTTONWOOD 3 278-4711

SHOCKER (R) (2:45) (4:55) 7:05 9:15

CRIMES AND MISDEMEANORS (R) (2:40) (4:55) 7:10 9:25

GROSS ANATOMY (PG13) (2:20) (4:40) 7:00 9:20 STEREO

COTTONWOOD 5-6-7 4890 SO. HIGHLAND-CREEKSIDE PL.

WOODY ALLEN

CRIMES AND MISDEMEANORS (R) (2:40) (4:55) 7:10 9:25

GROSS ANATOMY (PG13) (2:20) (4:40) 7:00 9:20 STEREO

COTTONWOOD 4 278-4711 5001 SO. HIGHLAND

THE BEAR (PG) (5:30) 7:30 9:40

GROSS ANATOMY (PG13) (5:00) 7:10 9:30 STEREO

COTTONWOOD MALL 4 278-4711 5001 SO. HIGHLAND

PHANTOM OF THE OPERA (R) (1:30) (3:30) (5:30) 7:30 9:30

BLACK RAIN (R) (2:00) (4:30) 7:00 9:30

SHOCKER (R) (2:45) (4:55) 7:05 9:15

CRIMES AND MISDEMEANORS (R) (2:40) (4:55) 7:10 9:25

GROSS ANATOMY (PG13) (2:20) (4:40) 7:00 9:20 STEREO

Activity
Hughes
4:00 am
12-6-89
announced:
to live
Jensen,
BeMormon
8yr stud
7/10/1A

LDS donating powdered milk to Armenians

3 Dec 1989
Because of a critical need for milk in the Armenian area hit by a devastating earthquake a year ago, The Church of Jesus Christ of Latter-day Saints is donating 10,000 pounds of powdered milk to the stricken area.

The milk comes from Church welfare system dairy farms in the Salt Lake Valley and is being processed at the Church's dairy complex on Welfare Square in Salt Lake City. Half of the shipment will be in two-and-a-half-pound packages and the rest will be in bulk packaging.

The Church will truck the milk from Salt Lake City to southern California, where it will be loaded with goods from other organizations and relief agencies on a plane bound for Armenia.

Officials say the milk shortage is directly related to European milk-production restrictions in the wake of the 1986 accident at a nuclear plant in Chernobyl, U.S.S.R.

The Church earlier this year announced plans to provide craftsmen to assist with the rebuilding of housing for the victims of the Armenian quake. That project is expected to get underway in the spring.

Survey: Practicing Mormons live longer

12-8-89
LOS ANGELES (AP) — An eight-year study of 10,000 Mormons suggests that people who exercise regularly and don't smoke live longer, healthier lives.

Dr. James Enstrom, who studied the habits of religiously active Mormons in California, said his research shows those who follow the church's teachings against using tobacco and who exercise and get seven to eight hours sleep a night are far healthier than people in the general white population.

"We knew from previous studies of Mormon death records that this population has an unusually low cancer mortality rate that is only partially explained by their lack of

smoking," said Enstrom, of the University of California, Los Angeles. "The current study allowed us to follow a large group of active Mormons over a long period of time and to examine subgroups adhering to specific health habits."

The study examined three general health habits: never smoking cigarettes, regular physical exercise and regular sleep.

The males involved in the study were all high priests, the highest lay position in the Church of Jesus Christ of Latter-day Saints. The women were wives of high priests.

That particular group was selected, Enstrom said, because its members would be more likely than

other Mormons to strictly adhere to church doctrine banning alcohol, tobacco and caffeine use.

The study found that middle-age high priests who didn't smoke and who exercised and slept well had 34 percent the rate of cancer mortality as middle-aged white men in the United States. The high priests also had only 14 percent the rate of cardiovascular disease mortality and 22 percent the rate of overall mortality, Enstrom said.

Middle-age wives of high priests who followed the same health habits had only a 55 percent rate of cancer death compared to middle-aged white women, Enstrom said.

They had a 34 percent rate of cardiovascular disease mortality and a 47 percent rate of overall mortality.

Further, a 25-year-old high priest can expect to live to age 85, compared with a life expectancy of 74 for 25-year-old white males, Enstrom said.

A 25-year-old high priest wife has a life expectancy of 86 years, compared with 80 for other white 25-year-old females, Enstrom said.

The results of the survey, conducted at the UCLA School of Public Health, were to be published in the December issue of the Journal of the National Cancer Institute.

Utah people, etc.



Tony Ausseresses helped link Utah with Armenia.

NASA commends Utahn for linkup that aided Armenia quake victims

Tony Ausseresses has always been a stargazer; now he has a plaque from NASA to prove it.

Ausseresses, a specialist in broadcast telecommunications at LDS Hospital, was responsible for managing the satellite technology that linked physicians at LDS Hospital with physicians in the Soviet Union who were caring for victims of the Armenian earthquake and a major train wreck.

Early this year, NASA established a "telemedicine spacebridge" that allowed Soviet medical specialists to present cases — transmitted live by satellite — that were reviewed by physicians in four American hospitals.

Some 230 Soviet doctors and 210 patients were involved; 47 of those patients had their diagnosis or treatment altered by the American physicians — and 16 new treatment methods were introduced.

The American doctors who were involved, including Dr. Terry Clemmer, head of critical care medicine at LDS Hospital, were all recognized for their work. Ausseresses was the only non-physician to be commended by NASA.

Intermountain Health Care provided the additional equipment needed to carry out the project; the expertise came from LDS Hospital doctors and Ausseresses.

Because Armenia is 10 hours ahead of Salt Lake City time, Ausseresses had to establish a satellite uplink by 6:30 a.m., which tied into the end of the day for the Armenians.

"I liked getting up so early; it was great," he said. "How often do you get to interface with another cultural that's so different from your own?"

"I was always into astronomy when I was growing up. I used to watch the stars with my dad out in our front yard," he said. "This telemedicine we've been doing is déjà vu of sorts. One day you're out in the yard looking at the stars and then a few days later you're receiving signals from space with your own satellite dish."

Utah effort ho in top albums

"Impulse," the debut album by Airus recording artist Sam Cardon, was honored recently by Radio & Records magazine as one of the top albums of 1989.

In their Dec. 15 "Top 89 of '89," issue, Radio & Records listed "Impulse" as the #22 album of the year in the "New Adult Contemporary" category. This determination was made based on airplay as reported by NAC radio stations across the U.S.

Cardon's album hit the #2 position on the R & R chart during September and October of this year and remained there for three consecutive weeks. It was prevented from climbing to the number one spot by Pat Metheny's "Letter From Home" album, which remained at the top of the charts for more than two months. Interestingly, Metheny's album was named the #1 NAC album in the yearly R & R survey.

In charting at #22 for the year, Cardon found himself keeping good musical company. Other artists include Larry Carlton (#6), Spyro Gyra (#14), Lee Ritenour (#20), Tom Scott (#21), Jean Luc Ponty (#28), Kenny G (#27), and Dave Grusin (#48).

"Impulse" was the first national release for Airus Records, a new age and light jazz record label

operat
Cardo
winne
the 1
curre
for A
early

In
las
to
io

Andrea
Paul

Richard

Japanese claim fusion success

Scientists taking credit for work of Pons, Fleischmann, U. says

By JoAnn Jacobsen-Wells
Deseret News science writer



UTAH'S
FUSION
FUTURE

University of Utah officials say that Japanese scientists, who this week announced finding new ways to achieve room-temperature cold fusion, are "apparently" taking the credit for the work of University of Utah fusion pioneers B. Stanley Pons and Martin Fleischmann.

And despite stringent patent laws, the Japanese could capitalize on the pair's discovery.

In the November issue of the English-language Japanese Journal of Applied Physics, scientists at Japan's Nagoya University said nuclear fusion had occurred spontaneously between two palladium electrodes in a flask filled with deuterium (heavy water) gas.

The physicists said the major difference between their work and the Utah-born experiments is that the Japanese

used deuterium gas instead of heavy water.

But U. officials insist work of this kind has already been carried out by Fleischmann and Pons at the university. In fact, they say it is one of the subjects of patent applications.

Pons and Fleischmann confirmed Friday that the work has been part of the examination of electrolysis cells under extreme conditions and "details have not been released for obvious reasons."

The obvious reasons? Patents, energy sources and neutrons.

The U., which owns the experiments and the patents, has to file patents both in the United States and in each foreign country to protect its technology worldwide. The foreign patents don't prevent other countries from doing cold-fusion research similar to those of Pons and Fleischmann but do prevent foreign companies from selling patented products in the United States.

The work of many U.S. fusion researchers is tangled in a web of controversy, weakened by lack of financial support — from both the federal Department of Energy and commercial companies.

U. artificial heart program still pumping strongly



Donald B. Olsen inspects an artificial heart developed at the U. institute.

PHOTOGRAPHY/ GARRY BRYANT

■ **Research:** While devices have been used in 15 countries, many more people who await hearts could be saved, institute director says.

By JoAnn Jacobsen-Wells
Deseret News medical writer

The University of Utah continues to hold a preeminent position in the development of artificial hearts — the mechanical devices that could help save the lives of thousands of Americans who need, but can't get, human transplants, U. officials said Wednesday.

The heart program has been pumping strongly since Seattle dentist Barney Clark became the first recipient of the Jarvik-7 (now called the Symbion-7) permanent artificial heart at the U. seven years ago.

In fact, if the federal Food and Drug Administration gives the green light — U. surgeons could be replacing a human heart with the Utah-100, another pneumatically driven artificial heart by early 1990.

The device, developed at the U.'s Institute for Biomedical Engineering, will be used on a temporary basis — no longer than 30 days — as a bridge to human heart transplantation.

According to Dr. Gregory Burns, 11 different artificial devices, including the Symbion-7, have been used in 15 different countries on more than 200 patients for various periods of time.

But many more men and women in the United States alone, he said, could be aided by the devices.

Burns, director of the biomedical division, Artificial Heart Research Lab, said 35,000 to 50,000 people await cardiac transplants annually in the United States. Because a maximum of only 2,000 quality human heart donors are available, one in four transplant patients die because they can't get hearts.

The beat goes on

In 1989:

- 11 different devices were used
- 15 countries authorized use
- 41 teams performed operations
- 177 recipients later received transplants

Additionally, the American Heart Association estimated that, during 1989, some 376,000 Americans would die in the hospital of heart attacks; half that many more would die at home or in transit to the hospital.

"I am not suggesting that all of these people receive artificial hearts because many of the patients are extremely old with many other debilitating diseases," said Dr. Donald B. Olsen, institute director. "But certainly there is a large percent (perhaps 80 percent) of these patients that, given a suitable artificial heart for long-term application, could be helped."

Olsen believes two other devices, being developed at the U. Institute for Biomedical Engineering, will be lifesavers.

● Within the next three years, a totally implantable, electrically powered artificial heart could be ready for application. The U. is one of four groups that received funding from the National Institutes of Health to develop the revolutionary device.

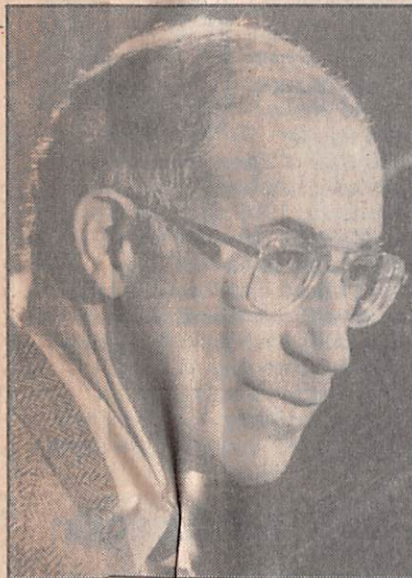
● A totally implantable, electric ventricular assist device, called EVAD, may be within four years of clinical application. The device, which would supplement, rather than replace the damaged heart, is being developed through a consortium of the U., Canadian government, Ottawa Heart Institute and a Canadian industrial partner — St. Jude.

While Olsen believes "Utah is way out in front in artificial heart research," lack of

Please see HEART on B2

*Utah Continues
Record
71 heart transplants
in 1988-9 yr*

Texan receives lung-assist device



PHOTOGRAPHY/ DON GRAYSTON

Dr. Alan Morris said progress reports will not be released.

■ **Developed in Utah:** Teen is listed critical after first-ever implant at LDS Hospital.

By JoAnn Jacobsen-Wells
Deseret News medical writer

A day after becoming the world's first recipient of a new lung-assisting device, a female teen from Texas remained in critical condition Saturday at LDS Hospital.

The IntraVascular Oxygenator, a pioneering device that works like a lung in supplying oxygen to the body, was implanted by Dr. Roger C. Millar during a historic two-hour operation Friday afternoon at the Salt Lake medical facility.

Millar, a cardiovascular surgeon, is the only surgeon in this region approved by the federal Food and Drug Administration to implant the 20-inch device.

LDS Hospital is one of four centers approved by the FDA for limited testing of the

IVOX, which uses a booster or auxiliary gas exchanger and can satisfy as much as half of the body's need for oxygen delivery and carbon dioxide elimination.

A hospital source said the first recipient of the device, age 16, was admitted to the Salt Lake medical facility last week for treatment of acute respiratory distress syndrome.

However, medical specialists who met with the news media Saturday afternoon, said at the request of the family they would not disclose information about the patient.

"It's ethically not proper for us to disclose that," said Dr. Terry Clemmer, chief of critical-care medicine at LDS.

Clemmer also refused to discuss the actual surgery or future applications of the device.

"The implantation of this device is just a part of this clinical research. It is very early in the evaluation of this device — so early, in fact, that we really do not have any credible information about the evaluation of the device to report. And we probably won't have

Please see LUNG on A4



PHOTOGRAPHY/ DON GRAYSTON

Dr. Terry Clemmer said device just part of hospital's research.

4 Feb 1990

LUNG

Continued from A1

for many months or years," he said.

Clemmer emphasized that the device is not an artificial lung, or a device that takes the place of a removed lung. "It would be like calling glasses an artificial eye. It is more akin to an assist device."

The IVOX bundle, developed by CardioPulmonics Inc., a Salt Lake biomedical technology company, is inserted in the inferior vena cava, the large vein bringing blood to the heart, through an incision in either the neck or groin. Two small tubes, about the diameter of a soda straw, exit the body.

Oxygen pumped into one tube is carried by a bundle of hollow fibers to the blood. At the same time, carbon dioxide, found in relatively high concentrations in venous blood, is pulled through the fiber wall into the hollow fiber and out of the body through the second tube.

The vacuum effect is maintained by a tiny electrical pump.

In announcing the device last month, Dr. J.D. Mortensen, chief developer, said IVOX uses a newly devised membrane technology that has the capacity to provide as much oxygen as larger, external ventilators and could prove to be much cheaper and simpler to operate.

Clemmer cautioned, however, that it's premature to tell how successful the device will be or how many people will benefit from it.

"Think back to the artificial heart and the projections made at that time. Eight years later we are still trying to find out what the role of that is going to be. You are asking to project in the future something we can't even estimate," he told reporters.

"Our hope is that the day will come that it will be efficient enough, safe enough, that we could help people who have respiratory failure to temporarily tide them over until their lungs will heal. It is not a device that will heal the lungs," Clemmer said. "It buys us some time and creates a better environment for the natural lung to heal itself."

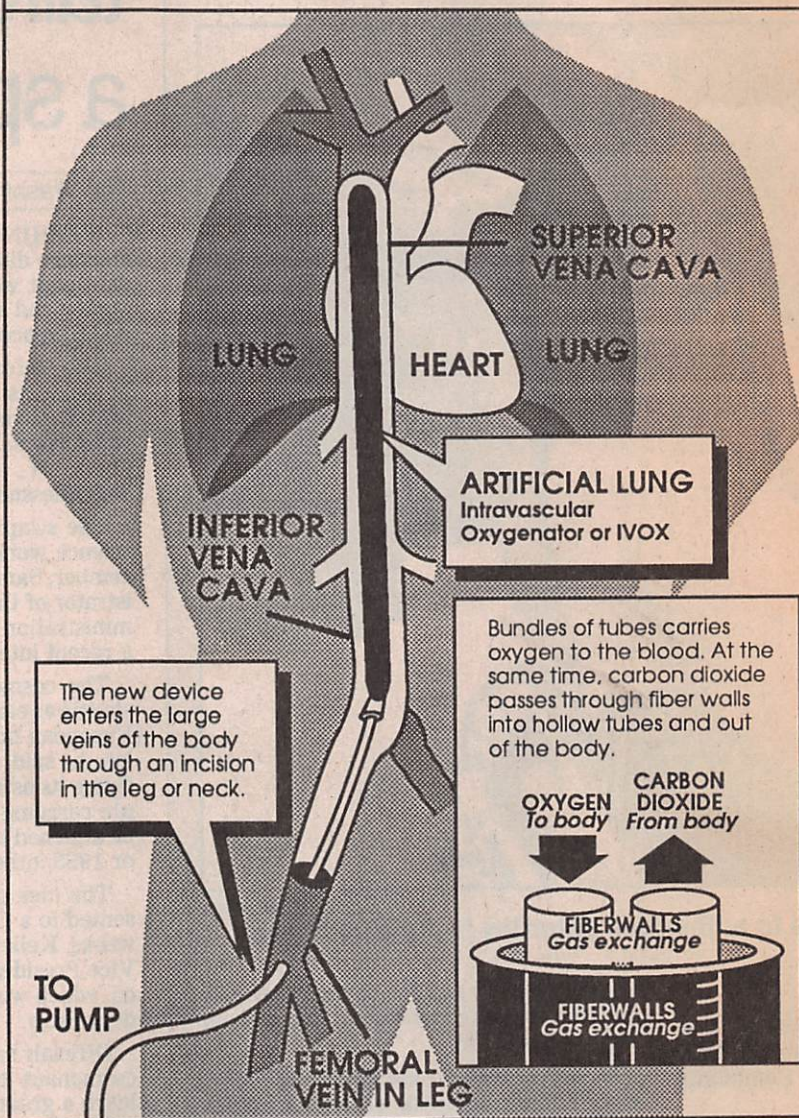
CardioPulmonics Inc. announced Jan. 11 the device would be tested in eight to 10 patients at LDS Hospital, Penn State's Hershey Medical Center, the University of Michigan Medical Center in Ann Arbor, and the Los Angeles County-University of Southern California Medical Center.

Clemmer said Penn State and Michigan now also are ready to accept patients.

First-phase clinical guidelines approved by the FDA in September limit the implants to seven days in patients who have a 90 percent mortality rate. The experiments will in-

Artificial lung

Patients can use the new device for up to seven days. It satisfies as much as half of the body's need for oxygen delivery and carbon dioxide elimination. The device has been approved for testing at four medical centers across the United States.



Source: Cardiopulmonics Inc.

volve only patients with "acute" lung disease — patients not be eligible for lung transplants.

Mortensen said the initial experiments will involve only patients with acute lung disease, such as pneumonia or smoke inhalation, not long-term, chronic disorders such as cystic fibrosis or emphysema.

Clemmer said if the recipient's condition improves, the device would be removed in fewer than seven days. If removal proves life-threatening, the physicians would ask the hospital's Institutional Review Board for permission to leave it in longer, he said.

Mortensen, co-founder of CardioPulmonics Inc., said the company has spent more than \$8 million developing the device during the past eight years. More than 800 hours of animal trials were conducted.

Confidential case

Neither the news media nor the public will receive updates on the condition of the first patient to receive the Utah-developed lung-assist device.

Specialists at LDS Hospital discussing the case Saturday said it "provides no definitive information for advancing medical understanding," and discussing it "is nothing more than a violation of the patient's prerogative and that of the family."

"This patient can live, and the device could be absolutely useless," said Dr. Alan Morris, the hospital's director of research and a nationally respected investigator of Adult Respiratory Distress Syndrome. "This patient can pass away, and this device can turn out to be perfectly superb since all of the decisionmaking in the life we live is generally probabilistic."

4 Feb 1990

Implant patient still critical

2-5-90
SALT LAKE CITY (AP) — A teen-age girl implanted with a lung-assist device remained in critical condition today, four days after becoming the world's first human recipient of the IntraVascular Oxygenator.

LDS Hospital spokesman Tim Madden, honoring the family's request to divulge no information about the patient, said Monday that the girl's condition has not changed since she received the IVOX during a two-hour operation Friday.

Madden declined to provide any assessment of the patient's progress with the device.

"You can't tell anything from the first time," he said, "and to get any indication at Day 3 is totally premature."

LDS Hospital is one of four medical centers authorized by the U.S. Food and Drug Administration for clinical testing of the IVOX. The others are Hershey Medical Center at Pennsylvania State University, the University of Michigan Medical Center in Ann Arbor and the Los Angeles County-University of Southern California Medical Center.

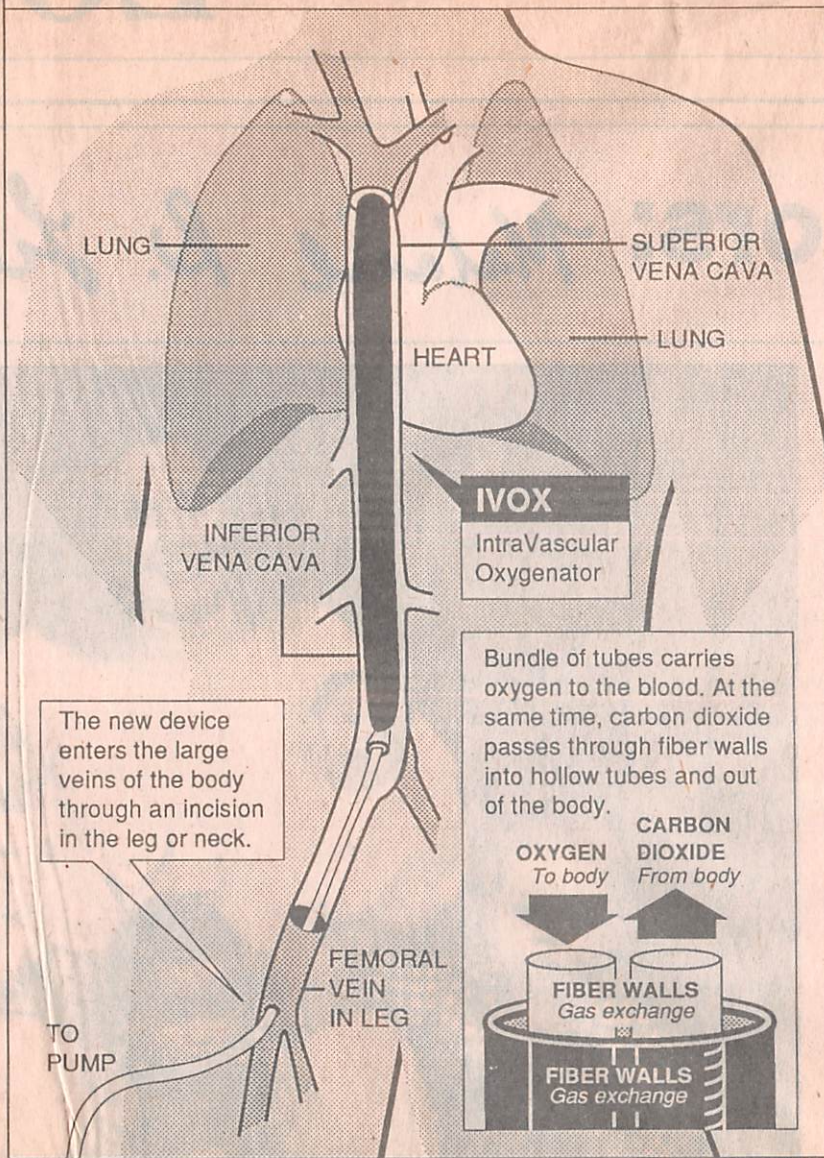
Protocol set by the FDA stipulates that the device be used on patients requiring 100 percent oxygen who have no better than a 10 percent chance of survival.

LDS Hospital physicians Alan Morris, director of pulmonary research, and Terry Clemmer, director of critical-care medicine, have said it may be months or even years before they can determine the medical potential of IVOX, which has received FDA approval for up to 10 experimental implants.

IVOX is an inch-wide bundle of plastic fibers that mimic the lung's task of supplying oxygen to the body. Developed by Salt Lake City-based CardioPulmonics Inc., it uses

Lung Booster

Patients can use the new device for up to seven days. It satisfies as much as half of the body's need for oxygen delivery and carbon dioxide elimination. The device has been approved for testing at four medical centers across the United States.



Source: Cardiopulmonics Inc.

AP/Cynthia Greer

an auxiliary gas exchanger and can satisfy as much as half of the body's need for oxygen delivery and carbon dioxide elimination.

It was unclear how long doctors

planned to leave the device inside the girl. FDA guidelines limit implants to seven days, and Madden said any use beyond a week would require further FDA permission.

Utah woman hopes to lead trek across Antarctica

Des News

ST. PAUL, Minn. (UPI) — As Minnesota explorer Will Steger moves closer to completion of a 3,600-mile expedition across Antarctica next month, a Utah woman is a member of a group planning another trek across the frozen continent.

Ann Bancroft, who traveled to the North Pole with Steger in 1986 and was the first woman to travel there on foot, will lead a team of women on a 1,700-mile trek across Antarctica, scheduled to begin Nov. 1, 1991.

The 120-day Snowbird Women's Trans-Antarctic expedition is expected to cost \$950,000.

Bancroft, 34, a former physical education teacher, said she hopes the trip will serve as a model for youngsters of what women can accomplish. "It's one more barrier that needs to be knocked down," she said.

The trek also will be the basis of research on the psychological and physiological effects of cold and

stress on women, said co-leader Reinette Senum of Salt Lake City.

It also is an inspiration for people to follow their dreams, said Senum, who conceived the idea and has been working on it for 18 months.

Senum is a mountain climber who trained with a 1989 Antarctic expedition but was unable to raise enough money to participate.

Bancroft said the expedition will run perpendicular to the route currently undertaken by Steger. It will

run from the Filchner ice shelf across the polar plateau to the South Pole, then to the Beardmore Glacier, across the Ross ice shelf to McMurdo Base.

The women will travel 12 to 20 miles a day. Three caches of food and equipment will be dropped off before the expedition begins.

Others on the team are Kellie Erwin-Rhoads, 33, Inkom, Idaho, and Sue Giller, 43, Boulder, Colo. Pat Frye Walker, 33, Minneapolis,

is an expedition alternate and the team's medical adviser.

Rhoads is a ski patroller and has taken part in two Mount Everest expeditions. Giller, a computer programmer who has climbed several mountains in the Himalayas, plans to lead an expedition to Mount Everest in the spring of 1991.

Walker is director of the International Clinic and the International Travel Clinic at St. Paul-Ramsey Medical Center.

7 patents to Utahns include aerospace, medical devices

By Barton J. Howell



PATENTS

Five mechanical and two chemical patents were awarded Utah inventors recently, including a rocket motor igniter and an artificial heart ventricle.

C. Max White, and James D. Rozanski, both of Brigham City. A consumable wafer igniter for a rocket motor. Assigned to Morton Thiokol, Inc., Chicago, Ill. Patent 4,901,642.

Orris E. Albertson, 1915 Wasatch Drive, Salt Lake City 84108, and Allen Baturay, 4005 Aldie Road, Catharpen, VA 22018. Deodorization and cleaning of medium temperature wet off-gases derived from burning of wet waste sludge. Patent 4,901,654.

E. Marlowe Goble, 850 E. 1200 North, and W. Karl Somers, 651 N. 150 West, both of Logan 84321. A drill guide for surgical applications.

Patent 4,901,711.

Theodore G. Thometz, Salt Lake City, and Charles D. Barron, Sandy. A flexible downhole measuring instrument assembly for use within a wellbore. Assigned to Eastman Christensen Company, Salt Lake City. Patent 4,901,804.

Willem J. Kolff, Salt Lake City. An artificial ventricle for use as part of a total artificial heart for implantation within a living being as part of its circulatory system. Assigned to University of Utah Research Foundation. Patent 4,902,291.

Brian Ball, and Rong-Yu Wan, both of Salt Lake City. Treatment of refractory carbonaceous and sulfidic ores or concentrates for precious metal recovery. Assigned to Newmont Gold Co., Carlin, Nev. Patent 4,902,345.

Ricky B. Steck, West Jordan. A method for rinsing, cleaning and drying silicon wafers. Assigned to Robert F. Orr, Salt Lake City. Patent 4,902,350.

Copies of patents may be obtained for \$1.50 from Box 9, Patent and Trademark Office, Washington D.C. 20231.

15 Feb 1989

Utah effort honored in top albums of '89

"Impulse," the debut album by Airus recording artist Sam Cardon, was honored recently by Radio & Records magazine as one of the top albums of 1989.

In their Dec. 15 "Top 89 of '89," issue, Radio & Records listed "Impulse" as the #22 album of the year in the "New Adult Contemporary" category. This determination was made based on airplay as reported by NAC radio stations across the U.S.

Cardon's album hit the #2 position on the R & R chart during September and October of this year and remained there for three consecutive weeks. It was prevented from climbing to the number one spot by Pat Metheny's "Letter From Home" album, which remained at the top of the charts for more than two months. Interestingly, Metheny's album was named the #1 NAC album in the yearly R & R survey.

In charting at #22 for the year, Cardon found himself keeping good musical company. Other artists include Larry Carlton (#6), Spyro Gyra (#14), Lee Ritenour (#20), Tom Scott (#21), Jean Luc Ponty (#28), Kenny G (#27), and Dave Grusin (#48).

"Impulse" was the first national release for Airus Records, a new age and light jazz record label

operating out of Salt Lake City. Cardon is also a recent Emmy winner for his musical scoring for the 1988 Winter Olympics. He is currently recording a second album for Airus due to be released in early February.

In 1870, Georgia became the last of the Confederate states to be readmitted to the Union.

Japanese claim fusion success

Scientists taking credit for work of Pons, Fleischmann, U. says

By JoAnn Jacobsen-Wells

Deseret News science writer



**UTAH'S
FUSION
FUTURE**

University of Utah officials say that Japanese scientists, who this week announced finding new ways to achieve room-temperature cold fusion, are "apparently" taking the credit for the work of University of Utah fusion pioneers B. Stanley Pons and Martin Fleischmann.

And despite stringent patent laws, the Japanese could capitalize on the pair's discovery.

In the November issue of the English-language Japanese Journal of Applied Physics, scientists at Japan's Nagoya University said nuclear fusion had occurred spontaneously between two palladium electrodes in a flask filled with deuterium (heavy water) gas.

The physicists said the major difference between their work and the Utah-born experiments is that the Japanese

used deuterium gas instead of heavy water.

But U. officials insist work of this kind has already been carried out by Fleischmann and Pons at the university. In fact, they say it is one of the subjects of patent applications.

Pons and Fleischmann confirmed Friday that the work has been part of the examination of electrolysis cells under extreme conditions and "details have not been released for obvious reasons."

The obvious reasons? Patents, energy sources and neutrons.

The U., which owns the experiments and the patents, has to file patents both in the United States and in each foreign country to protect its technology worldwide. The foreign patents don't prevent other countries from doing cold-fusion research similar to those of Pons and Fleischmann but do prevent foreign companies from selling patented products in the United States.

The work of many U.S. fusion researchers is tangled in a web of controversy, weakened by lack of financial support — from both the federal Department of Energy and commercial companies.

LDS donating powdered milk to Armenians

3 Dec 1989

Because of a critical need for milk in the Armenian area hit by a devastating earthquake a year ago, The Church of Jesus Christ of Latter-day Saints is donating 10,000 pounds of powdered milk to the stricken area.

The milk comes from Church welfare system dairy farms in the Salt Lake Valley and is being processed at the Church's dairy complex on Welfare Square in Salt Lake City. Half of the shipment will be in two-and-a-half-pound packages and the rest will be in bulk packaging.

The Church will truck the milk from Salt Lake City to southern California, where it will be loaded with goods from other organizations and relief agencies on a plane bound for Armenia.

Officials say the milk shortage is directly related to European milk-production restrictions in the wake of the 1986 accident at a nuclear plant in Chernobyl, U.S.S.R.

The Church earlier this year announced plans to provide craftsmen to assist with the rebuilding of housing for the victims of the Armenian quake. That project is expected to get underway in the spring.

2 B DESERET NEWS, TUES. P.M./WED. A.M., DECEMBER 19-20, 1989

Utah people, etc.



Tony Ausseresses helped link Utah with Armenia.

NASA commends Utahn for linkup that aided Armenia quake victims

Tony Ausseresses has always been a stargazer; now he has a plaque from NASA to prove it.

Ausseresses, a specialist in broadcast telecommunications at LDS Hospital, was responsible for managing the satellite technology that linked physicians at LDS Hospital with physicians in the Soviet Union who were caring for victims of the Armenian earthquake and a major train wreck.

Early this year, NASA established a "telemedicine spacebridge" that allowed Soviet medical specialists to present cases — transmitted live by satellite — that were reviewed by physicians in four American hospitals.

Some 230 Soviet doctors and 210 patients were involved; 47 of those patients had their diagnosis or treatment altered by the American physicians — and 16 new treatment methods were introduced.

The American doctors who were involved, including Dr. Terry Clemmer, head of critical care medicine at LDS Hospital, were all recognized for their work. Ausseresses was the only non-physician to be commended by NASA.

Intermountain Health Care provided the additional equipment needed to carry out the project; the expertise came from LDS Hospital doctors and Ausseresses.

Because Armenia is 10 hours ahead of Salt Lake City time, Ausseresses had to establish a satellite uplink by 6:30 a.m., which tied into the end of the day for the Armenians.

"I liked getting up so early; it was great," he said. "How often do you get to interface with another cultural that's so different from your own?"

"I was always into astronomy when I was growing up. I used to watch the stars with my dad out in our front yard," he said. "This telemedicine we've been doing is deja vu of sorts. One day you're out in the yard looking at the stars and then a few days later you're receiving signals from space with your own satellite dish."

Survey: Practicing Mormons live longer

12-8-89

LOS ANGELES (AP) — An eight-year study of 10,000 Mormons suggests that people who exercise regularly and don't smoke live longer, healthier lives.

Dr. James Enstrom, who studied the habits of religiously active Mormons in California, said his research shows those who follow the church's teachings against using tobacco and who exercise and get seven to eight hours sleep a night are far healthier than people in the general white population.

"We knew from previous studies of Mormon death records that this population has an unusually low cancer mortality rate that is only partially explained by their lack of

smoking," said Enstrom, of the University of California, Los Angeles. "The current study allowed us to follow a large group of active Mormons over a long period of time and to examine subgroups adhering to specific health habits."

The study examined three general health habits: never smoking cigarettes, regular physical exercise and regular sleep.

The males involved in the study were all high priests, the highest lay position in the Church of Jesus Christ of Latter-day Saints. The women were wives of high priests.

That particular group was selected, Enstrom said, because its members would be more likely than

other Mormons to strictly adhere to church doctrine banning alcohol, tobacco and caffeine use.

The study found that middle-age high priests who didn't smoke and who exercised and slept well had 34 percent the rate of cancer mortality as middle-aged white men in the United States. The high priests also had only 14 percent the rate of cardiovascular disease mortality and 22 percent the rate of overall mortality, Enstrom said.

Middle-age wives of high priests who followed the same health habits had only a 55 percent rate of cancer death compared to middle-aged white women, Enstrom said.

They had a 34 percent rate of cardiovascular disease mortality and a 47 percent rate of overall mortality.

Further, a 25-year-old high priest can expect to live to age 85, compared with a life expectancy of 74 for 25-year-old white males, Enstrom said.

A 25-year-old high priest wife has a life expectancy of 86 years, compared with 80 for other white 25-year-old females, Enstrom said.

The results of the survey, conducted at the UCLA School of Public Health, were to be published in the December issue of the Journal of the National Cancer Institute.

Dec 1989